



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Jason A. CU, et al.

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Group Art Unit: 2171

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Examiner: Chen, Te Y.

For: METHOD AND SYSTEM FOR PROVIDING A GENERIC  
SCALAR FUNCTION

Commissioner for Patents  
P.O. Box 1450  
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**DECLARATION UNDER 37 C.F.R. 1.132**

I, Jason Cu, hereby declare that:

1. I am the inventor of the subject matter recited in the claims of the above-identified U.S. application (the present application).
2. I have reviewed the specification of the present application as well as the drawings.
3. The following is based upon my reading of the specification of the present application as well as my knowledge and experience as an inventor.

4. It is my opinion that based upon reading the specification of the present application, one of ordinary skill in the art will readily understand that portions of the method and system in accordance with the present invention are based on well-known processes, particularly column functions, in relational databases. One of ordinary skill in the art will readily recognize that column functions are already present in many conventional relational databases and are used to operate on columns of data, which typically include a number of entries that is not determined at the time the column function is written.

5. Upon reading the specification of the present application, it is my opinion that one of ordinary skill in the art would readily realize what a generalized scalar function is as well as how the generalized scalar function works. Upon reading the specification, one of ordinary skill in the art will readily recognize that the generalized scalar function is termed a scalar function because it takes as inputs a predetermined number of arguments. In particular, the generalized scalar function takes as arguments the data for a predetermined number of data items in a row or rows. Upon reading the specification, it is my opinion that one of ordinary skill in the art would also readily recognize that the scalar function is used to take the data in the arguments (i.e. entries in the row or rows) and provide the data to a corresponding column function such that it appears to the column function that the data (the entries in the row or rows) are actually column(s). In other words, one of ordinary skill in the art will readily recognize that the generalized scalar function mimics a column environment for the column function.

6. Upon reading the specification of the present application, it is my opinion that one of ordinary skill in the art would readily understand that the column function utilizes the (mimicked) data provided by the generalized scalar function. The column function can use this data in a conventional manner because the generalized scalar function has provided the data to the column function in a manner that mimics a column environment. Thus, the column function still functions in a conventional manner.

7. Upon reading the specification, it is my opinion that one of ordinary skill in the art would readily recognize that there are a number of relatively simple ways in which the column environment can be mimicked. For example, the generalized scalar function could simply provide the entries in a row one-by-one to the column function. Consequently, knowing the function of the generalized scalar function and the column function with which the generalized scalar function is to be used, one of ordinary skill in the art could implement the generalized scalar function with minimal additional input and certainly without undue experimentation. Stated differently, one of would understand the scope of the generalized scalar function in present the application, would understand that the inventors had possession of the invention, and would be capable of making and/or using the invention recited in varying scope in the claims of the present application

8. It is my opinion that addressing issues such as the possibility of different attributes for different entries in a particular row are well within the abilities of one of ordinary skill in the art to address and are outside the scope of what is required to allow one of ordinary skill in the art to understand that the inventors had possession of the

invention and to make and/or use the present invention as described in varying scope in the present application. For example, the possibility of different attributes for different entries already exists in conventional scalar functions as well as in column functions and other functions used in relational databases. There are a variety of ways in which the possibility of different attributes are typically addressed, such as checking the individual entries and returning error messages if one or more entries has attributes that are inappropriate for a particular function. It is my opinion, therefore, that based upon their knowledge of the art, one of ordinary skill in the art would be fully capable of addressing issues such as the possibility of different attributes for different entries in a single row without additional disclosure in the specification of the present application.

9. It is my opinion that upon reading the specification, one of ordinary skill in the art would understand the operations of a conventional column function, such as locating a minimum or maximum, can be performed for rows without rewriting the entire function. Instead, the combination of a particular generalized scalar function and the pre-existing column function can be used. Thus, as described in the specification of the present application, the column function is reused for rows that have been input to the generalized scalar function.

10. Consequently, upon reading the specification of the present application, one of ordinary skill in the art would understand the scope of the present application, would understand that the inventors had possession of the invention, and would be

capable of making and/or using the invention recited in varying scope in the claims of the present application.

Jason A. CU  
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9/19/2003  
Date